

Palabora Asset Management Projects	Technical Specification
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Title:	Theiler Street & PMC Slip Road Rehabilitation – Tarmac Milling and Hot Asphalt Application		
Division:	Asset Management		
Area:	Project Services		
Project No:			
	Name:	Signature:	Date:
Client: Engineer	Otis Mathebula		
Client: Manager	Nozipho Zitha		
Client Senior Manager:	Abby Ledwaba		
Project Leader:	Meshack Maonye		
Projects Supt.:	Rowan Van Rensburg		
Project Manager:	Michael Mbele		

1. GENERAL:

Content:

The bidder, being an expert in his field, will accurately evaluate the needs of the contract by visiting the Site/s, studying the relevant drawings and Technical Specifications for this Contract, and tender accordingly.

Should there be any discrepancies or omissions in the tender information supplied, the bidder will immediately inform the Project Leader accordingly. The Project Leader will then rectify the situation and will inform all other bidders to ensure that comparable bids are received.

Claims for extra work, as a result of tender omissions, will not be entertained.

Materials:

Materials shall be first class grade, new and shall conform to the relevant specifications as described on the reference drawings and elsewhere in the Specifications.

Equipment:

All related equipment and machinery which is used in the contractual discipline to achieve the scope of work must be available from the awarded contractor being the expert in the field. The equipment, machinery and tools must be of a very high quality and in suitable order to achieve top level work expected in each engineering discipline.

Queries:

All queries, as well as any requests for deviation from this Technical Specification, shall be directed to the Project Leader.

Name:	Meshack Maonye	Tel No:	082 3619 654
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Palabora has appointed the following Project Inspector, who will be responsible for construction supervision and safety on the Contract.

Name:	Meshack Maonye	Tel No:	082 3619 654
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Contract Clearance Requirements:

It is a requirement that all contract clearances are obtained prior to commencing work on site. The Project Inspector will assist the Contractor to complete the clearance procedure correctly and without delay.

2. Scope of work:

Overview:

Tarmac milling and hot asphalt application

Supply, fabrication and installation of:

Pothole and edge breaks starting at Chainage 0m (beginning of Theiler and Park Streets) to Chainage 440 T-Junction of Park Street. The smallest pothole is calculated at 500mm x 500mm.

- **Chainage 0 – 100m**
15 x potholes of category 1 type
8x potholes of category 2 type
4 x edge breaks category 2 type
- **Chainage 200m**
10 x potholes of category 1 type
7x potholes of category 2 type
8 x edge breaks category 2 type
- **Chainage 300m**
10 x potholes of category 1 type
6 x potholes of category 2 type
6 x edge breaks category 2 type
- **Chainage 440m**
15 x potholes of category 1 type
9x potholes of category 2 type
6 x edge breaks category 2 type

PMC Slip road chainage 0m starts at Molengraaf road and chainage 260m ends at Copper road.

Tarmac milling and hot asphalt application

- Mill and remove existing tarmac surface with highly technological milling machine
- Load and dispose offsite the old bitumen or inorganic materials remove utilizing municipal landfill
- Supply material and repair base layer of the road where severely eroded or sagged
- Re-compact all new base layer material to standard (95% AASHTO)
- Supply and apply new bitumen binder and hot asphalt throughout the road length
- Roll and compact to required standard for municipal residential road
- Ensure to maintain camber shape of the road width and drainage sloping
- Use only SABS approved white line paint for roads.
- Allow recommended minimum time to re-open for traffic usage
- Supply and paint street road marking – white barrier line
- Supply and paint STOP insignia at Chainage 0 (at T-junction Taylor Street and Park Street)

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<p>Binding contract conditions</p> <ul style="list-style-type: none"> The entire road asphalt surface is to be removed by appropriate milling machine approved by PMC's CMC, as well as the hot asphalt application machinery and moving equipment All tooling, vehicles and personnel must be certified and passed by PMC's contract management before commencement at the correct contract date The scope of work requires a full time road maintenance/rehabilitation knowledgeable supervisor with good traffic control skills The scope of works requires a full time traffic control labour/staff All waste material must be timeously removed from site to municipal landfill All signage posts shall be erected by excavating and apply cement to the holes <p>Typical compliment of traffic control equipment</p> <ul style="list-style-type: none"> Demarcating traffic cones "STOP/GO" lolly pops (at least two) Red flags, full high visibility vests Speed signage Men at work signage "STOP/GO" revolving signage at all points of entrance Flashing orange warning lights (at least 8), only to be used at sunset Radios (at least three) Full PPE <p>Technical requirements</p> <ul style="list-style-type: none"> Full understanding of the Roads Agency Limpopo (RAL) specification and standard guide lines for construction Highly technological bitumen removal machinery High quality hot asphalt as prescribed for the suited conditions Hot asphalt must be 30mm thickness <p><u>It is essential for the successful contractor to adhere to these conditions set up by PMC standards</u></p>	

3. Drawings:

No	Description	Dwg No	Rev:

4. Inclusions/Exclusions:

Palabora

Contractor

NB Contractor to supply own water.

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5. Project Schedule:

Palabora wishes to complete the work by Project Completion Date: June 30 2021

The contractor must submit a detailed schedule within 7 days of receipt of order.

6. Quality:

Quality parameters will be applicable but not limited to this project as per PROJ...Quality Management [PROJ-OP-009]

7. Tender Price Submission

The pricing will be done as per the attached Pricing Schedule (Appendix 1 – Schedule of Quantities) and payments will be subjected to re-measurement of all quantities if applicable, otherwise a realistic progress agreed to by the Project Leader and the Project Inspector.

8. Safety, Health and Environment Regulations

The bidder is requested to familiarise himself with Palabora regulations, as laid out in the Palabora Standards, which is available on CD, from Contractor Management Centre.

Housekeeping and Site Management

The contractor will maintain a demarcated and tidy site at all times.

All construction rubble, waste and redundant equipment will be removed to appropriate dumping areas within the Palabora property on a daily basis.

Environment:

Palabora Mining Company is a certified ISO 14001 Company. The contractor is required at all times to observe the environmental requirements of the specific area in which the work is to be carried out and the property as a whole.

In particular, any chemicals that will be brought onto the property during the course of the contract execution should be brought to the attention of the Environmental Department

9. PPE (Personal Protective Clothing)

Standard Palabora PPE (minimum)
Area specific (specify which items apply)

10. Training And Qualifications

See Appendix 2 – SHEQ plan, training and qualification matrix

11. Site Supervision

Minimum supervision required will be as specified in the latest revision of the Mines Health and Safety Act.

If supervision that is more stringent is required, it is to be specified here:

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Appendix 1					
Schedule of Quantities					
Project Title:		Theiler Road and PMC Slip Road Rehabilitation – Tarmac Milling and Hot Asphalt Application			
Project No:					
	Description:	Unit	Qty	Rate	Amount
1.	Preliminary and general	Sum	1		
2. Pothole and edge break repairs					
2.1	Pothole category one – 30mm to 40mm wearing course only – 4 x cat per m ²	M ²	36		
2.2	Potholes category two – 150mm stabilised base layer (3% cement) and 30mm to 40mm wearing course – 1 x category 2 per m ²	M ²	20		
2.3	Potholes category three – 150mm sub-base layer, 150mm stabilised base layer (3% cement) and 30mm to 40mm wearing course – 1 x category 3 per m ²	M ²	6		
2.4	Edge break category one – 30mm to 40mm wearing course only category 1 per m ²	M ²	28		
2.5	Edge break category two – 150mm-stabilised base layer (3% cement) and 30mm to 40mm wearing course. Cat 2 per m ²	M ²	20		
2.6	Remove all waste material from the site to the specified dump site	Sum	1		
3 Tarmac milling and hot asphalt application					
3.1	Mill and remove existing tarmac surface with highly technological milling machine – 40mm	M ²	3200		
3.2	Load and dispose offsite the old bitumen or inorganic materials remove utilizing municipal landfill	Sum	1		
3.3	Supply material and repair base layer of the road where severely eroded or sagged	M ²	110		
3.4	Re-compact all new base layer material to standard	M ²	110		
3.5	Supply and apply new bitumen binder (S660) and hot asphalt throughout the road length – 30mm thickness	M ²	3200		
3.6	Roll and compact to required standard for municipal residential road	M ²	3200		
3.7	Road markings white centre line – 150mm line, durable road paint – as per scope specification/instruction	M	440		

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3.8	Road markings yellow road side lines – 150mm line, durable road paint – per scope specification	M	880		
4	Pothole and edge break repairs (PMC Slip Road)				
4.1	Pothole category one – 30mm to 40mm wearing course only – 4 x cat per m ²	M ²	15		
4.2	Potholes category two – 150mm stabilised base layer (3% cement) and 30mm to 40mm wearing course – 1 x category 2 per m ²	M ²	9		
4.3	Potholes category three – 150mm sub-base layer, 150mm stabilised base layer (3% cement) and 30mm to 40mm wearing course – 1 x category 3 per m ²	M ²	4		
4.4	Edge break category one – 30mm to 40mm wearing course only category 1 per m ²	M ²	22		
4.5	Edge break category two – 150mm-stabilised base layer (3% cement) and 30mm to 40mm wearing course. Cat 2 per m ²	M ²	22		
4.6	Remove all waste material from the site to the specified dump site	Sum	1		
5	Tarmac milling and hot asphalt application				
5.1	Mill and remove existing tarmac surface with highly technological milling machine – 40mm	M ²	1820		
5.2	Load and dispose offsite the old bitumen or inorganic materials remove utilizing municipal landfill	Sum	1		
5.3	Supply material and repair base layer of the road where severely eroded or sagged	M ²	80		
5.4	Re-compact all new base layer material to standard	M ²	80		
5.5	Supply and apply new bitumen binder (S660) and hot asphalt throughout the road length – 30mm thickness	M ²	1820		
5.6	Roll and compact to required standard for municipal residential road	M ²	1820		
5.7	Road markings white centre line – 150mm line, durable road paint – as per scope specification/instruction	M	260		
5.8	Road markings yellow road side lines – 150mm line, durable road paint – per scope specification	M	520		
		Total			

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Appendix 2 TRAINING AND QUALIFICATION MATRIX				
Contract description:		Theiler Road and PMC Slip Road Rehabilitation – Tarmac Milling and Hot Asphalt Application		
Project No:				
Description	Team/member	Vehicle/equipment Operator	Supervisor	Manager
2.6.1 Appointment				
2.9.2 Appointment				
Medical examination				
Generic safety induction				
General isolation				
Working at heights				
Basic rigging				
Gas cutting & welding				
Electrical grinding				
Crane driver's license				
Truck & hydraulic hoist license (Hiab)				
HIRA Training				
Supervisor legal course				
Provincial license				
Access and driving license:				
PP&V mining				
VO plant				
Mining surface				

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Mining pit				
Concentrator dams				
Trade certificates:				
Fitter				
Boilermaker				
Electrician				
Instrument Technician				
Rigger				

After receiving an official order:	
Attend scope clarification meeting with project personnel.	
Submit method statement to Project Inspector	
Submit HIRA for job	
Submit project schedule	
Obtain contract clearance from Projects	
Obtain HIRA approval from Project Engineer	
Before starting work:	
Report to CMC for tool, equipment, personnel and competency and certification checks	
Attend site specific induction by client supervisor	
Obtain daily permit to work from client operations supervisor and sign off at end of shift.	
Obtain hot work permit from client supervisor if required	
Obtain confined space permit if required.	
Obtain excavation permit if required.	
Attach personal locks to equipment locked out by client isolation officer and supervisor if required, and remove when job is complete.	

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Main Equipment Required
 *****(most but no limited to)



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